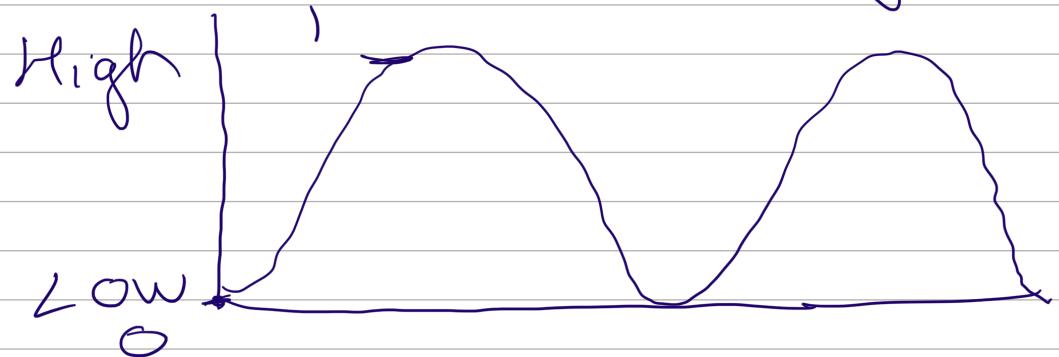


Computer \rightarrow Binary Language



$$1 = 001$$

$$2 = 010$$

$$3 = 011$$

$$[1 + 2] \rightarrow$$

$$\begin{array}{r} 001 \\ + 010 \\ \hline \end{array}$$

Play videos \rightarrow 1010101

Computer

③

1+2

Binary Language

Python (Programming Lang)

Human

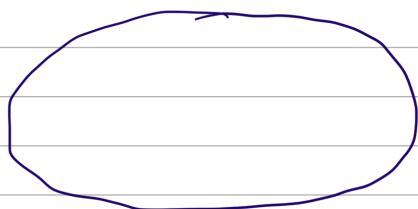
1+2

Python

- Easy Rules to Write
- Python is efficient
- Python is used

1. Boil the milk
2. Add the Sugar & Coffee
3. 5 min

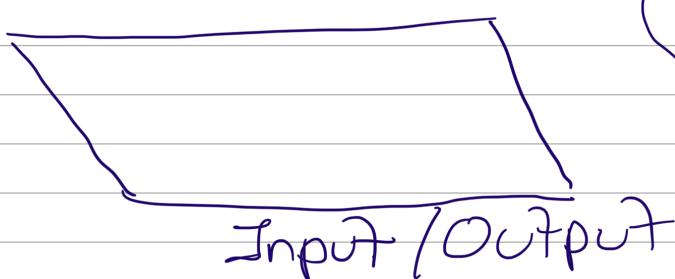
1
/



Terminal

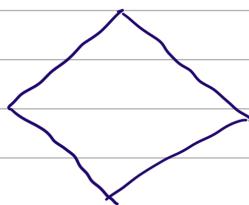
Start, Stop
or End

2.



Parallelogram

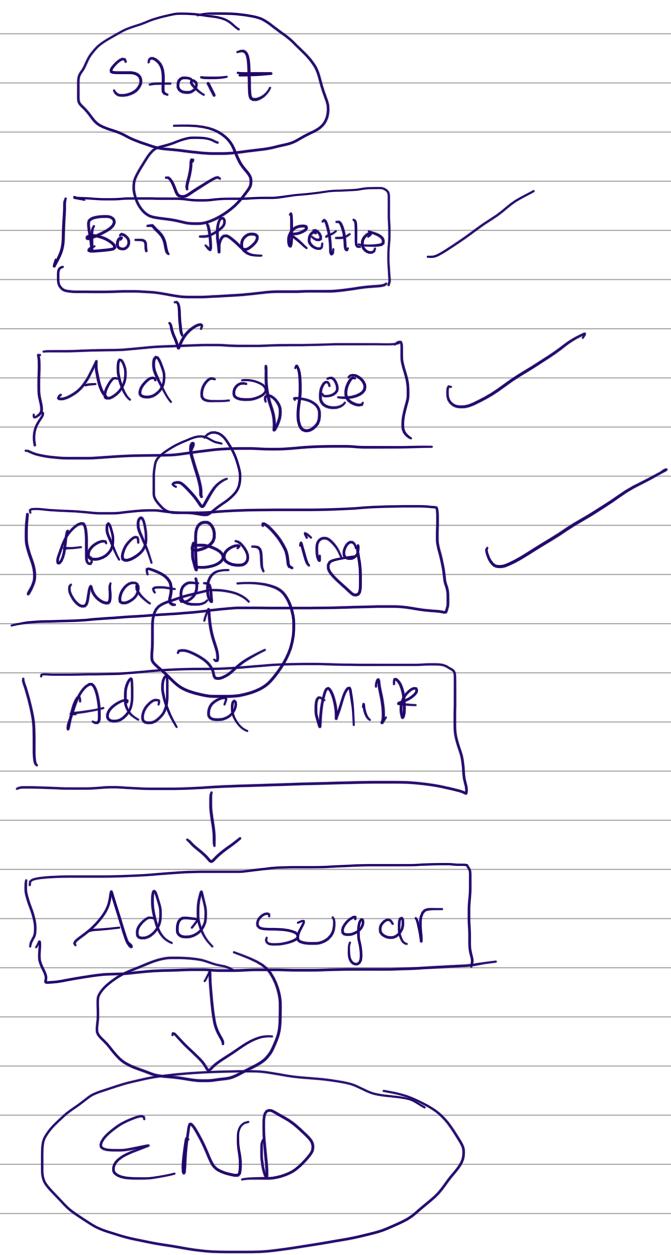
3.



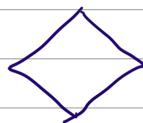
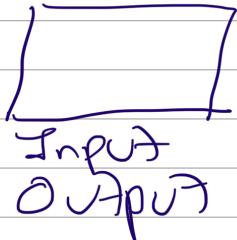
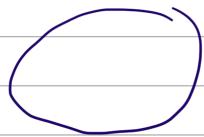
Decision

Diamond Symbol
represent a decision

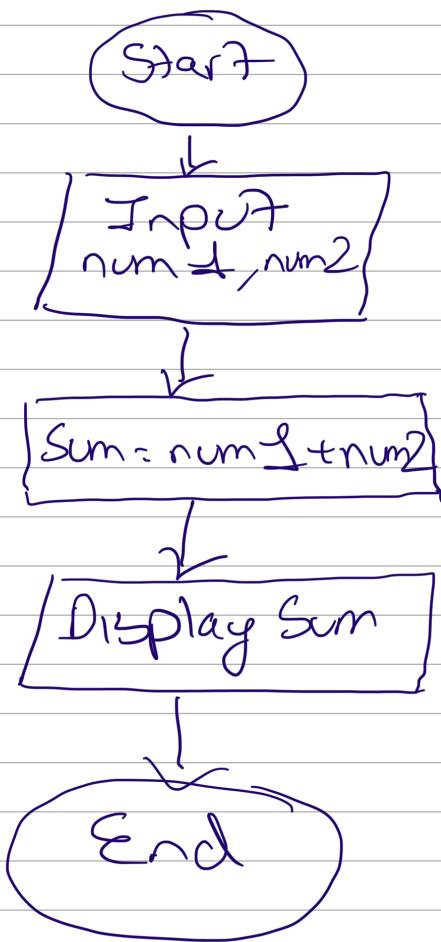
→ All the operation such as yes/no
are indicated by diamond



Q1. Sum two number with Flowchart



Rectangle

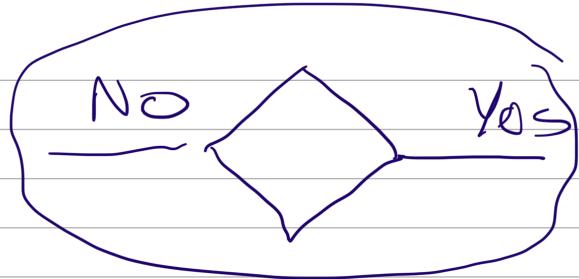


1. Create a flowchart to find greater number out of two.

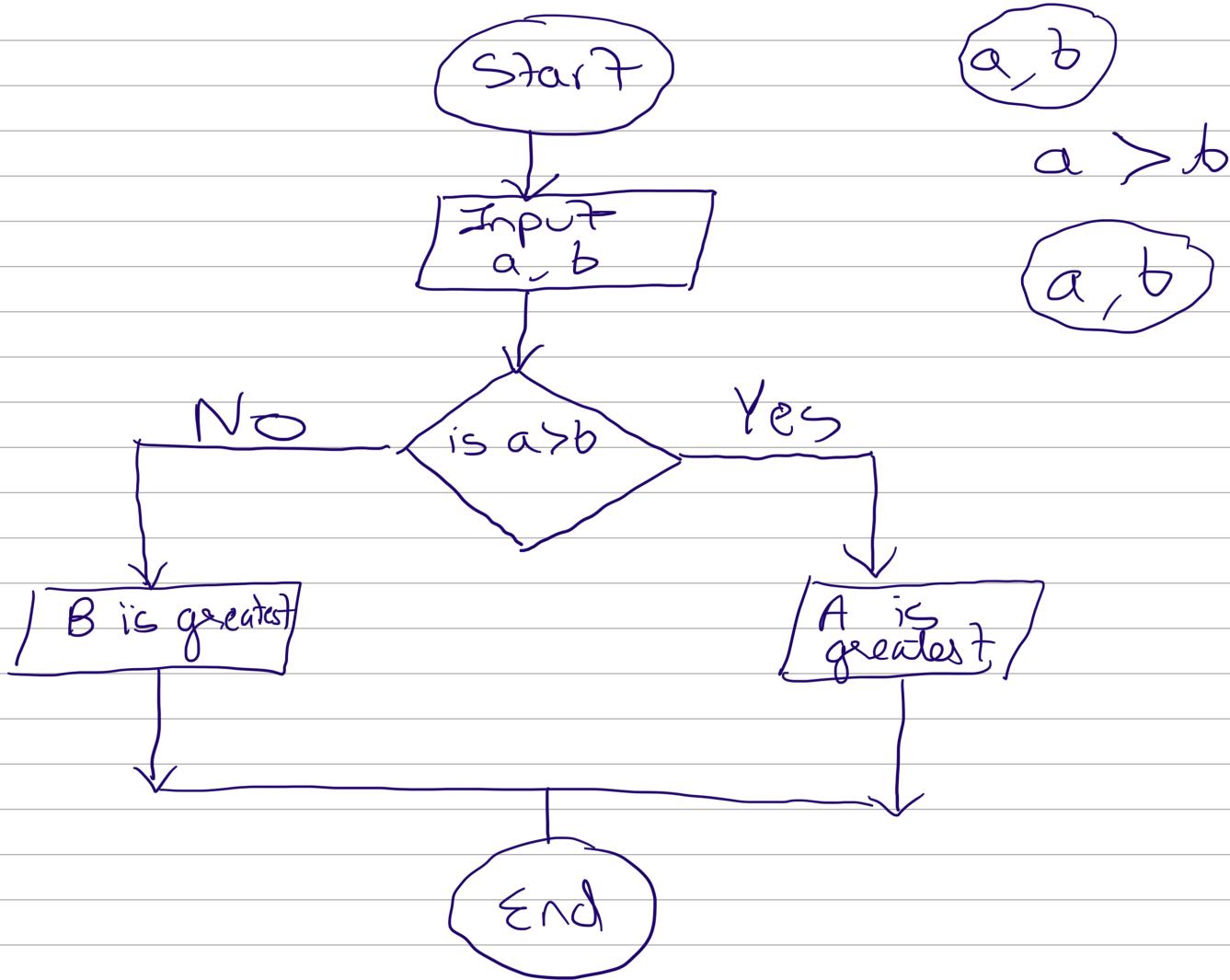
a, b

a = 3

b = 5 ✓

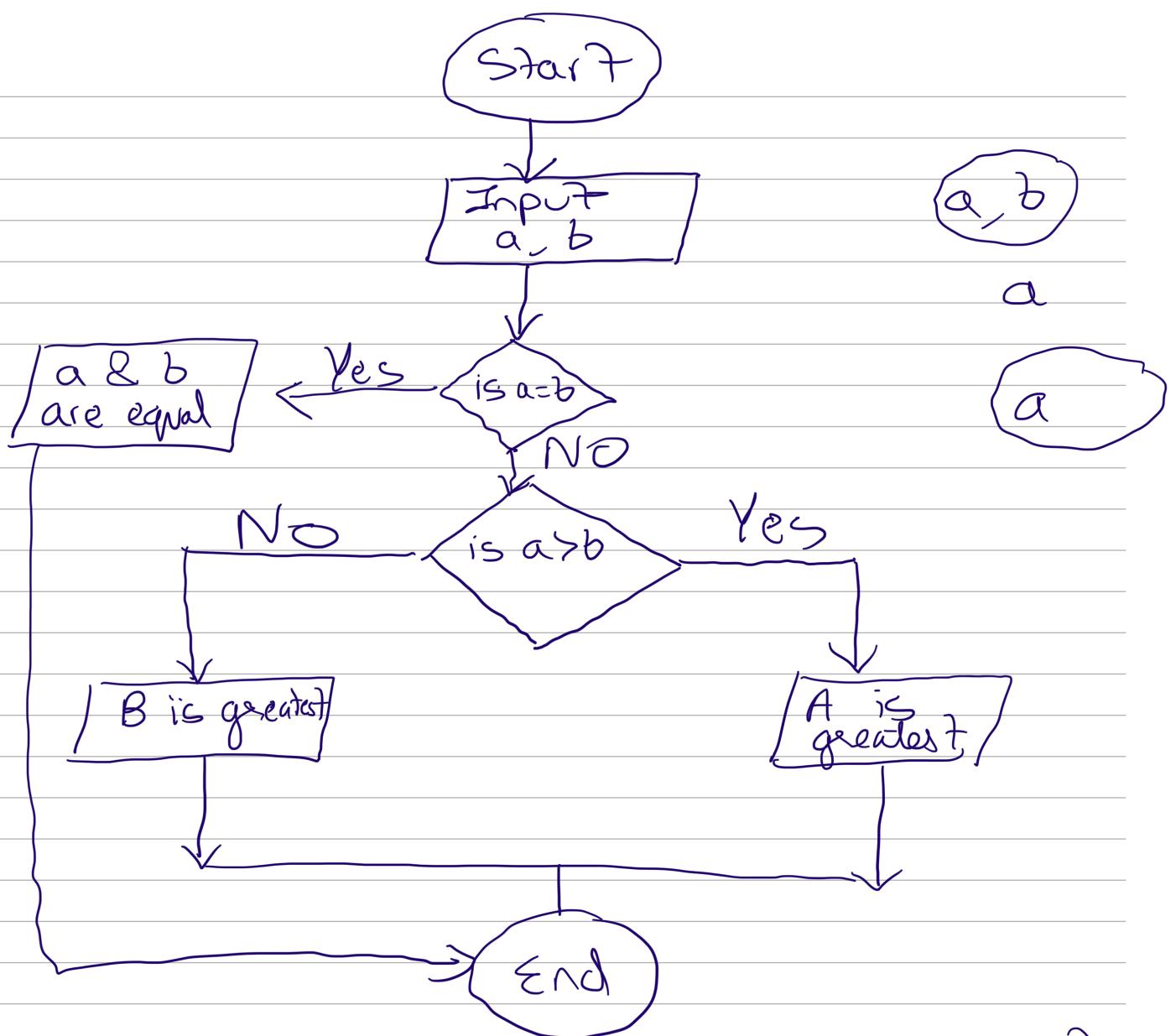


③ Minutes



Algorithm = Set of rules to follow in problem solving.

1. Start ✓
 2. input of a & b from user
 3. Check the condition if $a > b$
 4. Print a is greater if it is yes
 5. Print b is greater - no
 6. STOP



Q3. Draw a Flowchart to check whether the input no from user is Even or Odd.

$\%$ = Modulus

$$5 \% 3 = 2$$

$$4 \% 2 = 0$$

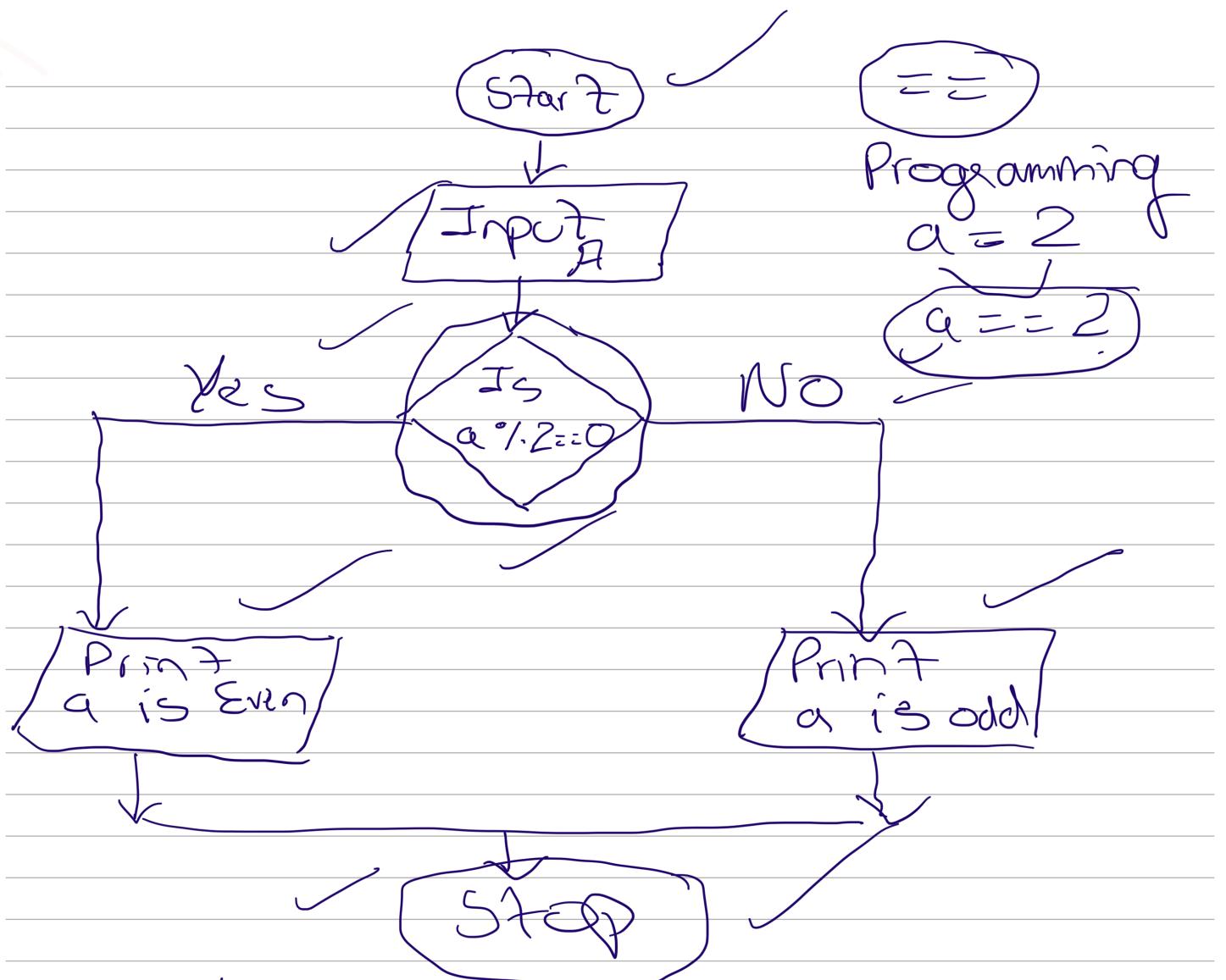
$$3 \overline{) 5} \quad ($$

$$\begin{array}{r} \\ -3 \\ \hline 2 \end{array}$$

$a \% 2 = 0$ Even
 $a \% 2 \neq 0$ Odd
 Not Equal

$$2 \overline{) 4} \quad (0$$

$$\begin{array}{r} \\ -4 \\ \hline 0 \end{array}$$



1. Algorithm for even & odd number

Algorithm + Programming → Program
Language or
Code

1. Start
2. Input A
3. Check the condition $a \% 2 == 0$
otherwise go to Step 5
go to Step 4
4. Print A is even
5. Print A is odd
6. Stop

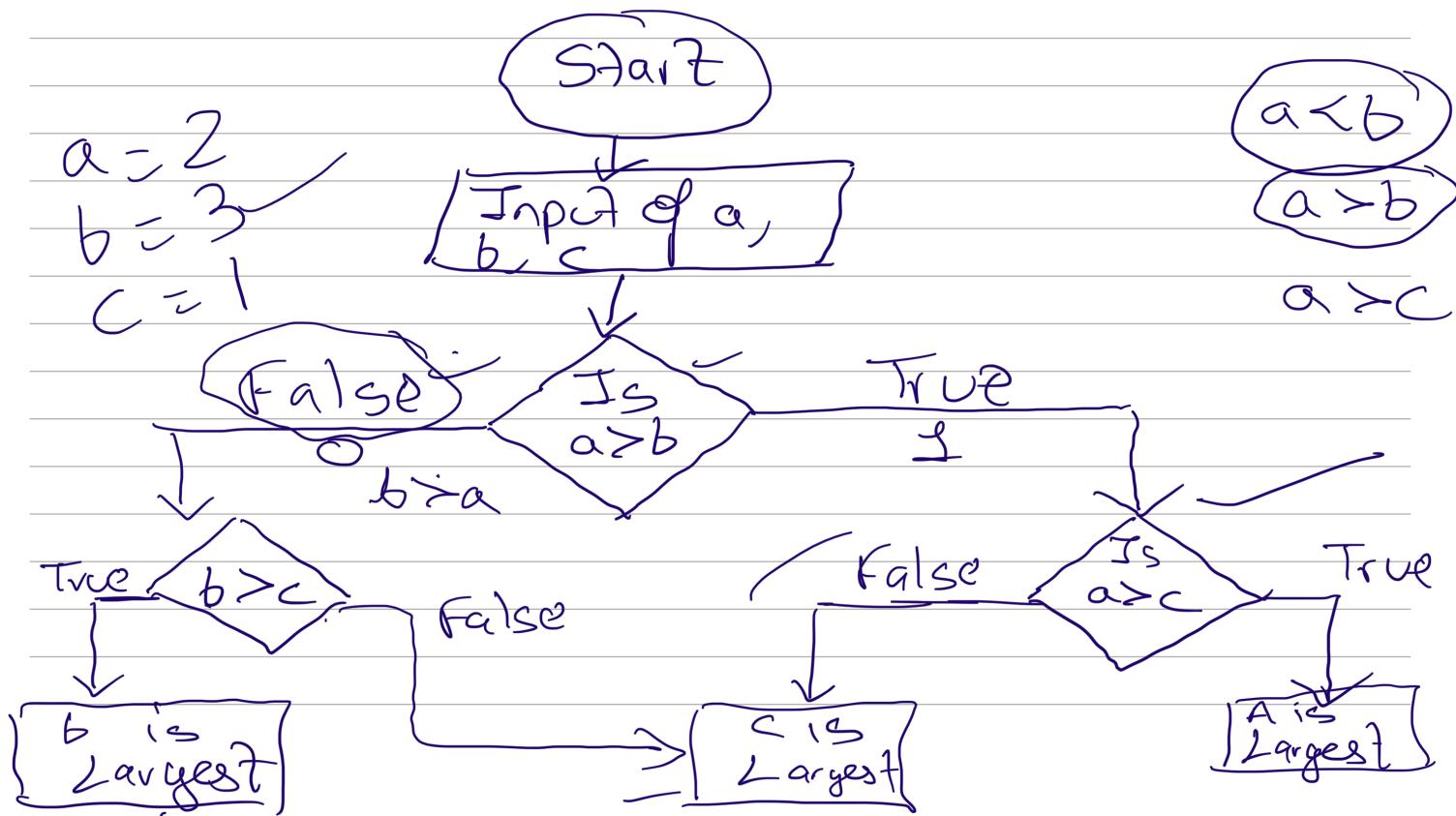
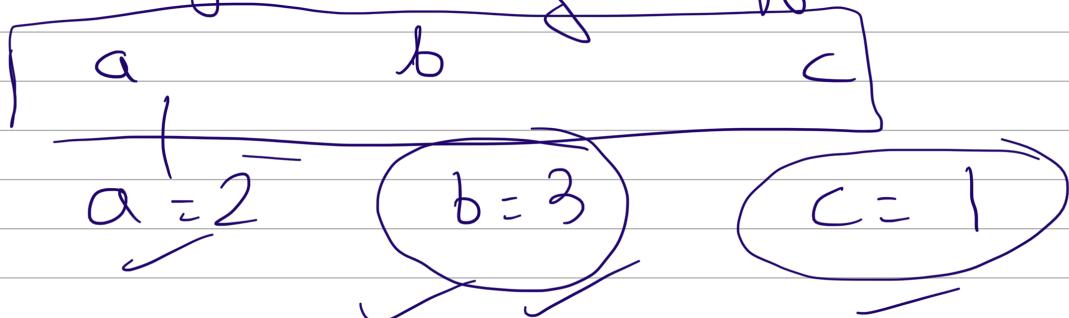
$$q = -3$$

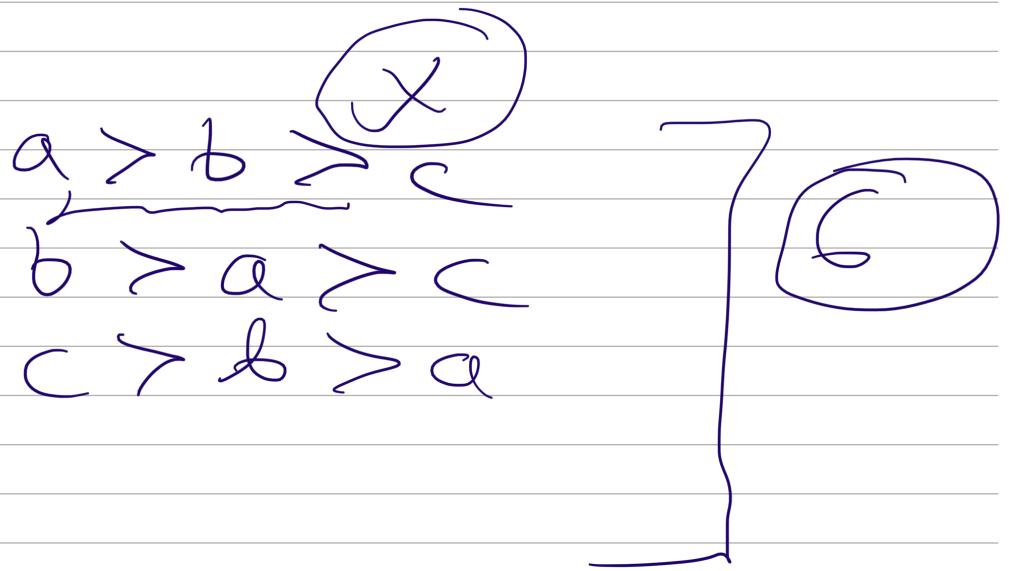
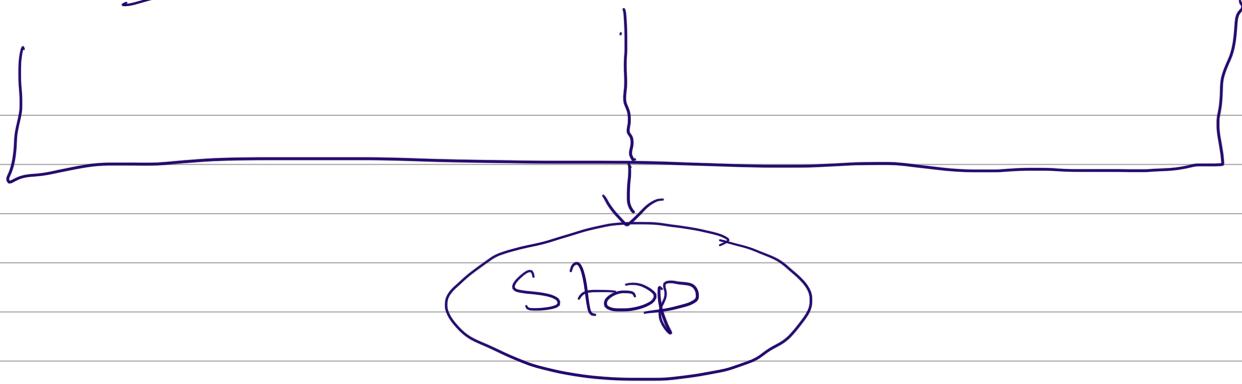
Check

$$a = 3$$

a has the value of 3

Q 3. Largest among 3 diff no .





$a > b$ or $a > c$

2 Min

Algorithm

1. Start.

2. INPUT of 3 numbers A,B,C

3. Check if $A > B$ —

3.1 if True, check for $A > C$

✓ 3.1.1 if true, A is largest

3.1.2 if false, C is largest

3.2 If False, check $B \geq C$

3.2.1 If true, B is largest

3.2.1 If False, C is largest

4. Stop

$$\boxed{ax^2 + bx + c = 0}$$
$$1. x^2 + 6x + 9 = 0$$
$$\underbrace{\quad}_{D = \frac{b^2 - 4ac}{-}}$$

$$x^2 + 6x + 9$$

$$1. x^2 + 6x + 9 = 0$$
$$\underline{a} x^2 + \underline{b} x + \underline{c} = 0$$

$$D = 6 \times 6 - 4 \times 9 = 0$$

No $D >= 0$ Yes

Imaginary
Root

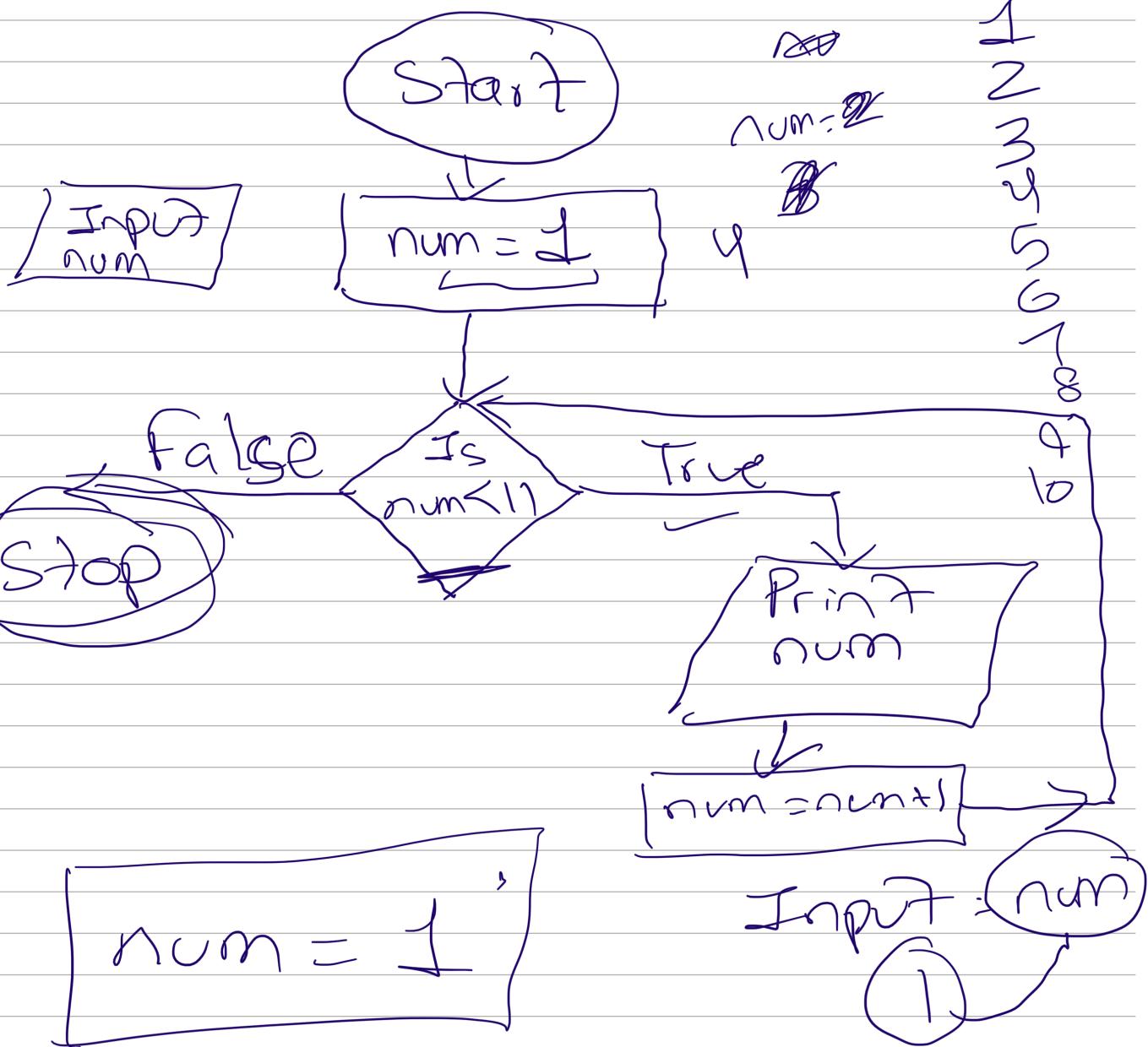
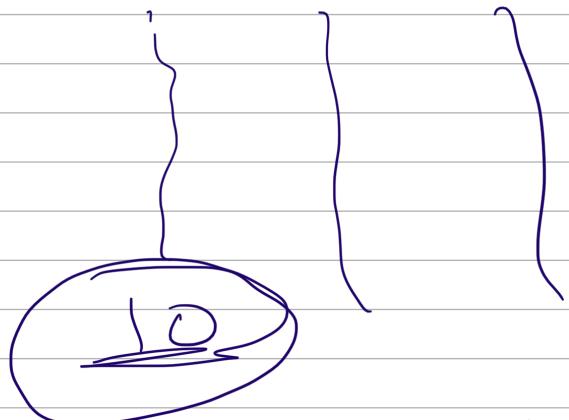
Real Roots

Q. Draw a Flowchart to print number from 1 to 10.

Ans.

1
2
3
4
5
6
7
8
9
10

$$\begin{aligned} \text{num} &= 1 \\ \text{num} &= 1 + 1 = 2 \\ \text{num} &= 2 + 1 = 3 \\ \text{num} &= 3 + 1 = 4 \end{aligned}$$



num ←
①

num = 1

Algorithm

1. Start
2. Initialise num = 1
3. Now check if $\text{num} < 1$ then
 goto step 4
otherwise goto Step 6
4. Print num
5. $\text{num} = \text{num} + 1$ then goto
 Step 3
6. Stop